

[54] FOOTWEAR WITH ADJUSTABLE
VISCOELASTIC UNIT

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[57] ABSTRACT

Footwear having an improved cushioning sole structure is disclosed. The footwear includes an upper and a sole member attached to the upper. The sole member includes a sealed inner member of a flexible material which is inflated with a gaseous medium to form a compliant and resilient insert. An elastomeric yieldable outer member encapsulates the insert about preselected portions of the insert. The inner and outer members function together to form a viscoelastic unit for attenuating the shock and returning the energy of foot impact. A mechanism adjusts the impact response of the unit so that the effect of the insert dominates the impact response function in a predetermined area adjacent at least one side of the insert. The adjusting mechanism includes a gap in the outer member along the side of the insert adjacent the predetermined area so that the flexible material of the sealed inner member can flex in the gap during foot impact.

26 Claims, 2 Drawing Sheets

